

Louisiana Postsecondary Review

Data Overview

SREB conducted a review of programs related to Environmental Protection and Sustainability offered by both two-year and four-year postsecondary institutions. Appendix B, an Excel spreadsheet of Louisiana postsecondary information, contains a list of all programs, including:

- Tab 1: Listing of EPS-related programs offered by each two-year institution
- Tab 2: Listing of EPS resources, contacts and details for each two-year institution
- Tab 3: Listing of EPS-related programs offered by each four-year institution
- Tab 4: Listing of EPS resources, contacts and details for each four-year institution
- Tab 5: Listing of related program completions for institutions, by occupational title
- Tab 6: Listing of top certifications requested in job postings, by occupational title
- Tab 7: Summary of postsecondary program awards granted for 2018 by occupational title, cross-referenced with seven-year job projections

The “Degree Programs” tab presents data on the number of postsecondary degrees awarded by Louisiana institutions for each occupation was provided by JobsEQ. Degree program data was collected by the National Center for Education Statistics and then connected to relevant occupations by JobsEQ. The degree programs listed in this spreadsheet may be different from specific program names at each institution because they were organized according to the broad degree categories defined by NCES. The “2-Year EPS” and “4-Year EPS” tabs present specific degrees with their unique names related to the EPS pathway available at each Louisiana postsecondary institution. The “List of Certifications” tab includes any unique certifications requested in job postings related to each occupation. Data was compiled and provided by JobsEQ.

Summary

Table 1 compares the number of 2018 graduates who obtained a degree connected to each EPS occupation across the state with the number of projected job openings within that occupation. This provides a sense of how many students in Louisiana are prepared to fill jobs needed in EPS occupations across the state.

Table 1: 2018 Summary of Statewide Postsecondary Certificates and Degrees Granted and Seven-Year Job Projections by Occupational Title

Occ. Code	Occupational Title	Certificates and 2-Year Degrees Awarded	4-Year Degrees Awarded	Postgraduate Degrees Awarded	Total Openings (Due to Growth and Transfers) 2020-2027
19-2031	Chemists	0	180	45	648
17-2041	Chemical Engineers	No Data	No Data	No Data	1400
17-2051	Civil Engineers	0	211	26	1904
17-2071	Electrical Engineers	0	176	33	559

Occ. Code	Occupational Title	Certificates and 2-Year Degrees Awarded	4-Year Degrees Awarded	Postgraduate Degrees Awarded	Total Openings (Due to Growth and Transfers) 2020-2027
19-2041	Environmental Scientists and Specialists, Including Health	0	74	55	660
17-2141	Mechanical Engineers	0	356	16	877
45-2011	Agricultural Inspectors	No Data	No Data	No Data	129
17-3011	Architectural and Civil Drafters	412	0	0	676
19-2021	Atmospheric and Space Scientists	0	2	0	50
25-1042	Biological Science Teachers, Postsecondary	4	1581	359	150
19-4021	Biological Technicians	0	0	22	134
19-4031	Chemical Technicians	42	0	0	1487
25-1052	Chemistry Teachers, Postsecondary	0	180	46	75
17-3022	Civil Engineering Technicians	20	57	0	456
49-9092	Commercial Divers	13	0	0	175
17-3012	Electrical and Electronics Drafters	412	0	0	122
17-3023	Electrical and Electronics Engineering Technicians	66	20	7	876
17-3025	Environmental Engineering Technicians	30	0	0	208
17-2081	Environmental Engineers	0	37	0	259
19-4091	Environmental Science and Protection Technicians, Including Health	0	74	13	297
25-1053	Environmental Science Teachers, Postsecondary	0	74	14	40
19-1032	Foresters	0	74	32	55
19-4041	Geological and Petroleum Technicians	216	51	0	508

Occ. Code	Occupational Title	Certificates and 2-Year Degrees Awarded	4-Year Degrees Awarded	Postgraduate Degrees Awarded	Total Openings (Due to Growth and Transfers) 2020-2027
17-3027	Mechanical Engineering Technicians	0	0	0	140
11-9121	Natural Sciences Managers	61	2147	830	224
51-8013	Power Plant Operators	No Data	No Data	No Data	188
27-3031	Public Relations Specialists	1	387	27	1263
19-1013	Soil and Plant Scientists	0	63	21	108
17-3031	Surveying and Mapping Technicians	10	4	0	794
17-1022	Surveyors	10	4	0	513
25-1041	Agricultural Sciences Teachers, Postsecondary	104	198	52	78
25-1051	Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary	0	113	95	22
19-4093	Forest and Conservation Technicians	8	16	15	166
19-2042	Geoscientists, Except Hydrologists and Geographers	0	111	90	490
17-2121	Marine Engineers and Naval Architects	0	12	0	98
51-8031	Water and Wastewater Treatment Plant and System Operators	30	0	0	1111
19-1023	Zoologists and Wildlife Biologists	0	3	29	40
19-4011	Agricultural and Food Science Technicians	0	51	18	232
19-1031	Conservation Scientists	0	144	49	347
45-2093	Farmworkers, Farm, Ranch, and Aquacultural Animals	No Data	No Data	No Data	501
45-4011	Forest and Conservation Workers	0	16	0	286
19-2032	Materials Scientists	4	1509	344	48

Occ. Code	Occupational Title	Certificates and 2-Year Degrees Awarded	4-Year Degrees Awarded	Postgraduate Degrees Awarded	Total Openings (Due to Growth and Transfers) 2020-2027
19-1029	Biological Scientists, All Other	No Data	No Data	No Data	342
19-2099	Physical Scientists, All Other	No Data	No Data	No Data	5

Source: National Center for Education Statistics (NCES) and JobsEQ; see Appendix B (Excel).

Table 2 provides a summary of the most popular EPS-related degrees awarded in Louisiana in 2018. Top degrees were based on the number of degrees awarded across all institutions statewide.

Table 2: Most Popular EPS-Related Degrees Awarded Statewide in 2018

Degree	Total Awarded
Biology/Biological Sciences, General	1355
Drafting and Design Technology/Technician, General	412
Mechanical Engineering	372
Speech Communication and Rhetoric	301
Petroleum Technology/Technician	267

Source: National Center for Education Statistics (NCES) and JobsEQ; see Appendix B (Excel).

Table 3 provides a summary of the least popular EPS-related degrees. The least popular degrees listed below had the lowest numbers of degrees awarded across all institutions.

Table 3: Least Popular EPS-Related Degrees Awarded Statewide in 2018

Degree	Total Awarded
Forensic Chemistry	1
Science Teacher Education/General Science Teacher Education	1
Biology Teacher Education	1
Biochemistry, Biophysics and Molecular Biology, Other	1
Biological and Biomedical Sciences, Other	1
Health Communication	1
Conservation Biology	1

Source: National Center for Education Statistics (NCES) and JobsEQ; see Appendix B (Excel).

SREB staff completed a detailed review of credentials related to the EPS pathway. This review was first based on data gathered from JobsEQ. The List of Certifications Tab presents identified

certifications requested in recent job postings. SREB staff referenced [Jump Start Fact Sheets](#) and the [Louisiana Industry-Based Certification State Focus List](#) to determine which EPS-related credentials would be available for high school students. Table 4 provides a list of EPS-related credentials that can be attained by high school students by occupational title.

Table 4: Credentials Available for High School Students

Occupational Title	Related Credential
Electrical Engineer	National Center for Construction Education & Research Certification (NCCER)
Civil Engineering Technicians	Occupational Safety and Health Administration (OSHA) 10
Commercial Divers	First Aid Certification Certification in Cardiopulmonary Resuscitation (CPR) Emergency Medical Technician (EMT)
Electrical and Electronics Drafters	Autodesk AutoCAD Microsoft Office Microsoft Excel
Electrical and Electronics Engineering Technicians	OSHA 30 CompTIA Network+ Certification
Environmental Science and Protection Technicians, Including Health	Certified Forester (CF) OSHA 30
Natural Sciences Managers	Basic Life Support (BLS) First Aid Certification Certification in Cardiopulmonary Resuscitation (CPR)
Forest and Conservation Technicians	Certification in Cardiopulmonary Resuscitation (CPR) First Aid Certification

Source: JobsEQ; See Appendix B (Excel)

SREB staff also designated credentials of value using the following criteria:

- The third-party developer of the credential, licensure or certification exam provides a detailed exam blueprint that shows how the credential aligns with state and/or national academic, technical and workplace standards.
- The credential, licensure or certification exam constitutes an appropriate end-of-program assessment for a high school student who has completed a three- to four-course career pathway program of study.
- The credential, licensure or certification exam has a credible link to high-demand industries and high-wage jobs that pay a self-sustaining wage of \$35,000 or more for individuals in the state or region.
- The credential, licensure or certification exam has a credible link to related postsecondary certificates, credentials and/or degree programs offered by state two- and four-year institutions or formal apprenticeship programs.

Credentials of value that are available to high school students and meet the criteria for a credential of value are designated in **bold print** in Table 4. Additional credentials of value that

are not available at the high school level and require additional training beyond a high school diploma have been provided in Table 5.

Table 5: Credentials of Value Needing Additional Training

Occupational Title	Related Credential
Electrical Engineer	Certified Information Systems Security Professional (CISSP)
Electrical and Electronics Drafters	Autodesk Revit Dassault Systems SolidWorks Software
Natural Sciences Managers	Licensed Practical Nurse (LPN)

Source: JobsEQ; See Appendix B (Excel)